ICF
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Date: September 15, 2019

To: Brandon McDonald
ESAT Region 3 Project Officer

From: Ex. 4 CBI
Validator

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Reviewer

Subject: Inorganic Data Validation (S4VEM)
Oceana Salvage
48394 MC0AA0

Overview

This data package consisted of two (2) rinsate blanks, one (1) water sample, three (3) ground water samples, including a field duplicate sample, and six (6) surface water samples, including a field duplicate sample, analyzed for total metals by ICP-MS and for mercury (Hg) by cold vapor atomic absorption technique.

Analyses were performed by ChemTech (CHM) through the Contract Laboratory Program (CLP) according to Statement of Work (SOW) ISM02.4.

Data were validated according to the National Functional Guidelines for Inorganic Superfund Methods Data Review and applicable USEPA Region 3 modifications. Electronic validation was performed by the Electronic Data eXchange & Evaluation System (EXES). The validation report has been assigned the Superfund Data Validation Level Stage_4_Validation_Electronic_Manual (S4VEM).

The following validation narrative is an evaluation of laboratory reported data based on the electronic data package available through the EXES Data Manager dated August 29, 2019.

The laboratory received water sample MC0AA0 for metals and mercury analyses; however, this sample is not listed on chain of custody records. Per Region 3 direction, the laboratory is to proceed with the analysis of this sample.

Summary

No significant data quality outliers or technical deficiencies were identified that would require rejection of sample results. Blank contamination resulted in estimation of sample results.

Minor Problem

Laboratory instrumentation reported negative values for cadmium (Cd) greater than the absolute value of the Method Detection Limit (MDL) in blank analyses. The detected concentration reported for Cd in sample MC0AA5, which was less than the Contract Required Quantitation Limit (CRQL) was reported at the CRQL and qualified "UJ". Quantitation limits for Cd are estimated and qualified "UJ".

Notes

Detected concentrations for target analytes less than CRQLs are estimated and have been qualified "J" unless qualified "U" for blank contamination.

Aluminum (Al), antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), calcium (Ca), chromium (Cr), copper (Cu), iron (Fe), lead (Pb), magnesium (Mg), potassium (K), silver (Ag), sodium (Na), and thallium (Tl) have been detected in blanks associated with the samples in this SDG. Samples which reported detected concentrations for these analytes less than the Contract Required Quantitation Limit (CRQL) have been reported at the CRQL and qualified "U".

Contaminants manganese (Mn), nickel (Ni) and zinc (Zn) found in the analysis for rinsate blank MC0AE3 did not qualify associated field sample data.

Matrix spike, laboratory duplicate, Laboratory Control Sample, and serial dilution analyses were within control limits.

Chain of custody records list samples MC0AA1 and MC0AA5 as field duplicate samples, however, the data package did not include reference regarding the identification of duplicate samples. Additionally, sample MC0AE2 was identified as a rinsate blank. As no field sample dates corresponded to the date of this rinsate blank, there is no reference for corresponding samples. No evaluation was made by the validator regarding field duplicates or rinsate blank MC0AE2.

Sample calculation checks were performed on samples MC0AA1 and MC0AA9. All calculated results had Relative Percent Differences (RPDs) less than 5% of the reported results. No sample data were qualified.

Glossary of Inorganic Data Qualifier Codes

Validation Qualifiers	In order of descending precedence. Only one of these qualifiers may apply to any result.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit
B	The result is presumed a blank contaminant. This qualifier is used for drinking water samples only.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.